

claims under 35 U.S.C. § 102(e) as being anticipated by Nock, U.S. Patent 6,144,967. The Examiner has also objected to various elements of the specification and drawings. For the reasons noted below it is respectfully submitted that the claims, as amended, are patentable over the Nock reference, are directed to patentable subject matter, and meet the requirements of 35 U.S.C. § 101.

The drawings will be amended, as noted in red on the attached drawing sheets (these are the substitute sheets of the priority PCT application), to meet the Examiner's objections. Subject to the approval of the Examiner, formal correction will be made. The description has been amended; and in addition, a separate page of abstract is being enclosed, which is the same as the abstract appearing in the PCT application from which this application obtains priority. In particular, reference numbers have either been added or deleted in various sections of the application or drawings.

With regard to the non-statutory subject matter rejection of claims 2-7 under 35 U.S.C. § 101, it is respectfully submitted that the application, as amended, fully meets the requirements of the statute, in particular, in light of the new Patent Office Examination Guidelines for Computer-related Inventions. It should be clear from the specification that the invention is created as a computer-based system for implementing methods and systems as claimed. In this respect, the claims have been clarified to more specifically refer to a computer-based system and method.

Nevertheless, a review of the application as filed is enlightening. The title relates to a "computer-based system...". The abstract relates to a "computer-based method and apparatus...". The field of the invention states that it is "the field of computer-supported collaborative work." It specifically further calls for "(4) implementing computer-based systems

to support...such collaborative work.” The background relates to workgroup software, workflow software, and early decision support software. The summary of the invention states, at page 8, with regard to the models of the invention, that “[t]hese project models are a central element in a computer- and communications-based infrastructure to direct and guide the behavior of the participants in the work process. The summary further relates to workflow and workgroup software, information technology”, and so on.

Because of the nature of the implementation, that is object oriented programming, the description does not fall into the generally viewed form of a typical procedural computer program. Nevertheless, the description clearly describes the objects which are to be used in connection with the invention and the classes of those objects as those terms are used and well known in connection with object-oriented programming. Further, with regard to, for example, the functional model, the description states “a data flow diagram represents a computation” (page 17, lines 16-17) and that “[o]bject-oriented development places a greater emphasis on data structure and a lesser emphasis on procedural structure than traditional functional-decomposition technologies” in quoting (at page 17, lines 25-27) from the definition of object-oriented modeling and design, referred to on page 16 at lines 15-18. Indeed, the Object Modeling Technique (OMT) is here a computer-based system which is being described.

Further, the application at page 18 describes the term “application framework” as a “set of abstract and concrete classes comprises a generic software system for an application domain”. At the bottom of page 18, the text further states, beginning at line 27, “[t]he present invention consists of an “application framework” for development of abstract, decision process models.” Note that this is the same “application framework” defined as a generic software system for an application domain. Further examples are found in the text, and will not be further

specified. Nevertheless, it is respectfully submitted that the amended claims and the description clearly provide sufficient basis for withdrawing the rejection based upon non-statutory subject matter.

In addition, Applicant has added additional claims to more fully and clearly claim the scope of the invention to which he is entitled.

Further, claim 5 has been rejected under 35 U.S.C. § 112. The Examiner has objected to the language "utilizing messaging". It is unclear why the Examiner views this language as indefinite. The specification beginning at page 29, line 10, begins a description of the dynamic behavior of directed arcs, arc entry collection objects, and arc exit collection objects, and in that description clearly refers to the use of messaging or notifications between various states of the various objects in this decisional process. That is, once instantiation occurs, the method in fact utilizes the sending of messages (messaging) between the nodes and arcs, and the collections of arcs. Accordingly, it is suggested that the language of claim 5, "utilizing messaging" is clear. (Note that here, "messaging" is used as a noun.)

All of the claims have been rejected under 35 U.S.C. § 102(e) as being anticipated by Nock, U.S. Patent 6,144,967. Nock, however, does not meet the terms of the claims for the following reasons.

The subject matter of Nock is very "loosely" related to that of the claimed invention. Nock's framework produces object models of highly automated processes for analyzing computer logs or files. In its preferred embodiment, it has only one participant, the operator, who makes only a couple of decisions. This is quite different than the object-oriented

multi-participant system of the claimed invention which produces object models of processes which can range from completely manual (other than the communication and control which the model's implementation automates using a computer system) to a fully automated system. Unlike Nock, in the claimed invention, the data need not be restricted to computer logs and files. Furthermore, the processes to which the claimed invention is directed are those that are fundamentally collaborative requiring interactions among participants. This is why in Konnersman there are classes of decision, decision roles, and data which are important to the invention. In Nock they simply do not even exist.

With regard to claim 1, Nock does not address processes or projects but deals explicitly with one process namely that of analyzing a computer generated log. This process differs substantially from those which are the objects of the claimed invention, which anticipates the need for multiple interactions between a computer-based system and numerous participants. Thus, claim 1 requires both plural process models and plural project models and making those models elements of a computer-based system. In Nock, to the contrary, there is only one specific process which is dealt with, not a number of process models and project models. Accordingly, Nock simply does not describe, suggest, or teach the claimed invention. Further, Nock merely takes a procedural program and implements it in object form; this is not possible with the claimed invention.

With regard to independent claim 2, there is, in the elements referred to by the Examiner, nothing which relates the decision object to one or more data objects, nothing which "requires" for at least one decision object at least one data object as a prerequisite to its activation or completion, nothing which optionally generates additional subclasses or instances of the decision and data classes, nothing which instantiates a plurality of objects by abstract or

concrete classes and nothing which relates each decision object to one or more data objects which it produces. The structure of this method claim is not met by Nock and the operation of Nock is merely that of a typical object-oriented system, and is unlike that of the claimed invention which relates back, clearly, to the description herein.

Nock further does not provide for messaging between the nodes and arcs, and the collections of arcs as called for and described in the claimed invention (for example, claim 5). Nock does not provide any such structure between his objects even though, of course, as in any object-oriented system, he does identify and provide for communications between the objects. The interrelationships called for by claim 5 and the communications therebetween are simply not described in, for example, Figure 5 of Nock. In addition, claim 6 which requires a network with nodes as abstract decision situations and arcs directed by decisions based on logical precedence, is not described anywhere within Nock. In particular, it is not described in Figure 5 wherein one has merely the ordinary flow of information in an object-oriented program. The management of work processes is contemplated by claim 6 by providing arcs directed by decisions based on logical precedence is not found in that Figure. Similarly, the Figure does not describe a method for modeling and managing work processes as called for by the claim. The remaining original claims are dependent upon the claims noted above and should be found patentable at least for the reasons that the claims upon which they depend are patentable.

Applicants have also added claims 8-13 to more fully cover the invention described herein. Those claims have been reviewed in light of the Nock reference and are considered to be patentable over that reference, as well as the other references of which we are aware. Applicants are further submitting, under separate cover, an information disclosure statement which will cite references found during the PCT prosecution of this application as well




as several other references of which applicant is aware. It is respectfully submitted that none of those reference adversely affect patentability of the claimed invention.

Further, Applicant's attorney has reviewed the other references cited by the Examiner and does not find them to adversely affect patentability of the claimed invention. Accordingly, Applicant respectfully requests that the claims, as amended, be passed to issue in due course, in view of the comments and amendments made herein.

The Commissioner is authorized to debit any necessary fee or credit any overpayment relating to the above-identified application to Deposit Account No. 08-0219.

Respectfully submitted,

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